

Figure A-342. Boeing 747-200C-Cargo, ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7AW)

No. of Engines 4 Engine Rating 48,570 lb

Min. T/O Wt. 485.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 800.0 k-lb Max. T/O Wt. War-Time 800.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 621.4 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,800 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	Ultra		Low		High		Very Low	
	High A	Medium B	Low C	Low D	A	B	C	D
621	34	39	47	54	37	41	49	64
630	34	40	48	55	38	42	50	65
800	46	54	64	74	50	56	69	89

Figure A-343. Boeing 747-200C-Passenger

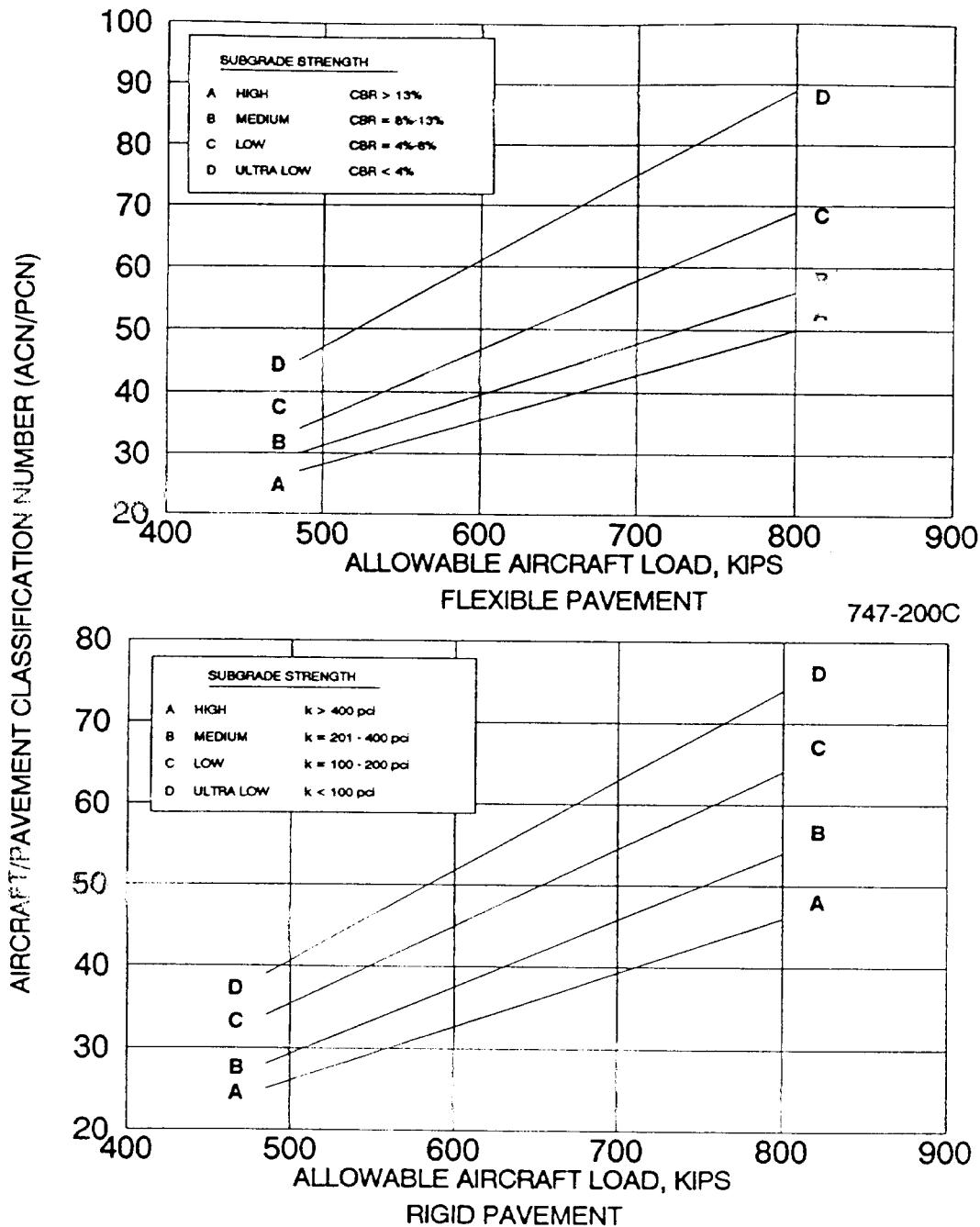


Figure A-344. Boeing 747-200C-Pass., ACN/PCN Curves

27 Sep 91

Aircraft Manufacturer BoeingAircraft Engine Manufacturer Pratt and Whitney (JT9D-70)No. of Engines 4 Engine Rating 53,000 lbMin. T/O Wt. 439.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †Max. T/O Wt. Peace-Time 833.0 k-lb Max. T/O Wt. War-Time 833.0 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,500 ft* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †Min. Ldg. Wt. 621.4 k-lb Max. Ldg. Wt. 630.0 k-lb* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,800 ft* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				Very Low D	
	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C			
621	34	39	47	54	37	41	49	64		
630	34	40	48	55	38	42	50	65		
833	48	56	68	78	53	59	73	94		

Figure A-345. Boeing 747-200F-Cargo

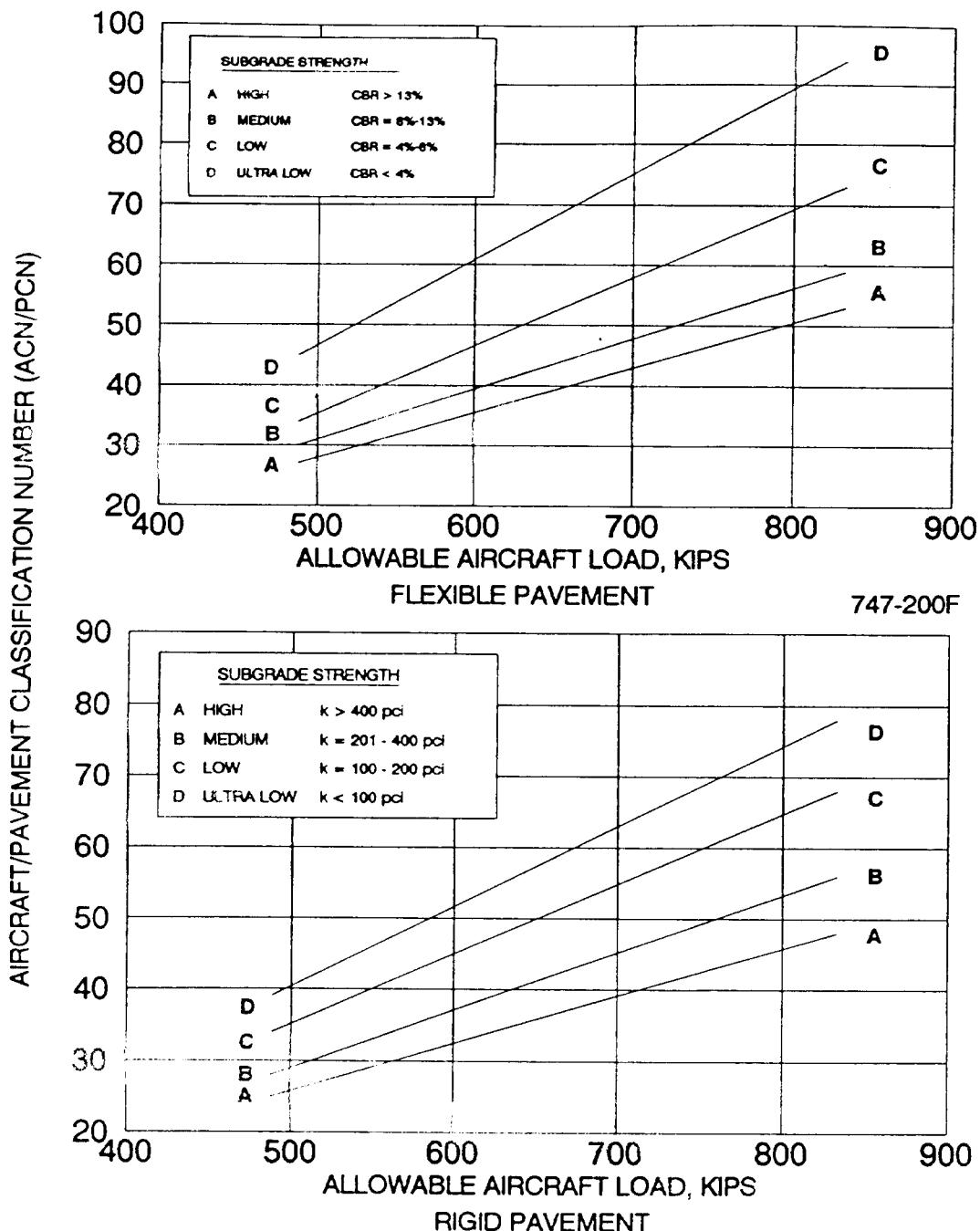


Figure A-346. Boeing 747-200F-Cargo, ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7R4G2)

No. of Engines 4 Engine Rating 54,000 lb

Min. T/O Wt. 479.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 833.0 k-lb Max. T/O Wt. War-Time 833.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 10,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 566.4 k-lb Max. Ldg. Wt. 574.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 6,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
					Very			
	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Low D
566	30	34	41	47	33	36	43	56
574	31	35	42	49	34	37	44	57
833	48	56	68	78	53	59	73	94

Figure A-347. Boeing 747-300-Passenger

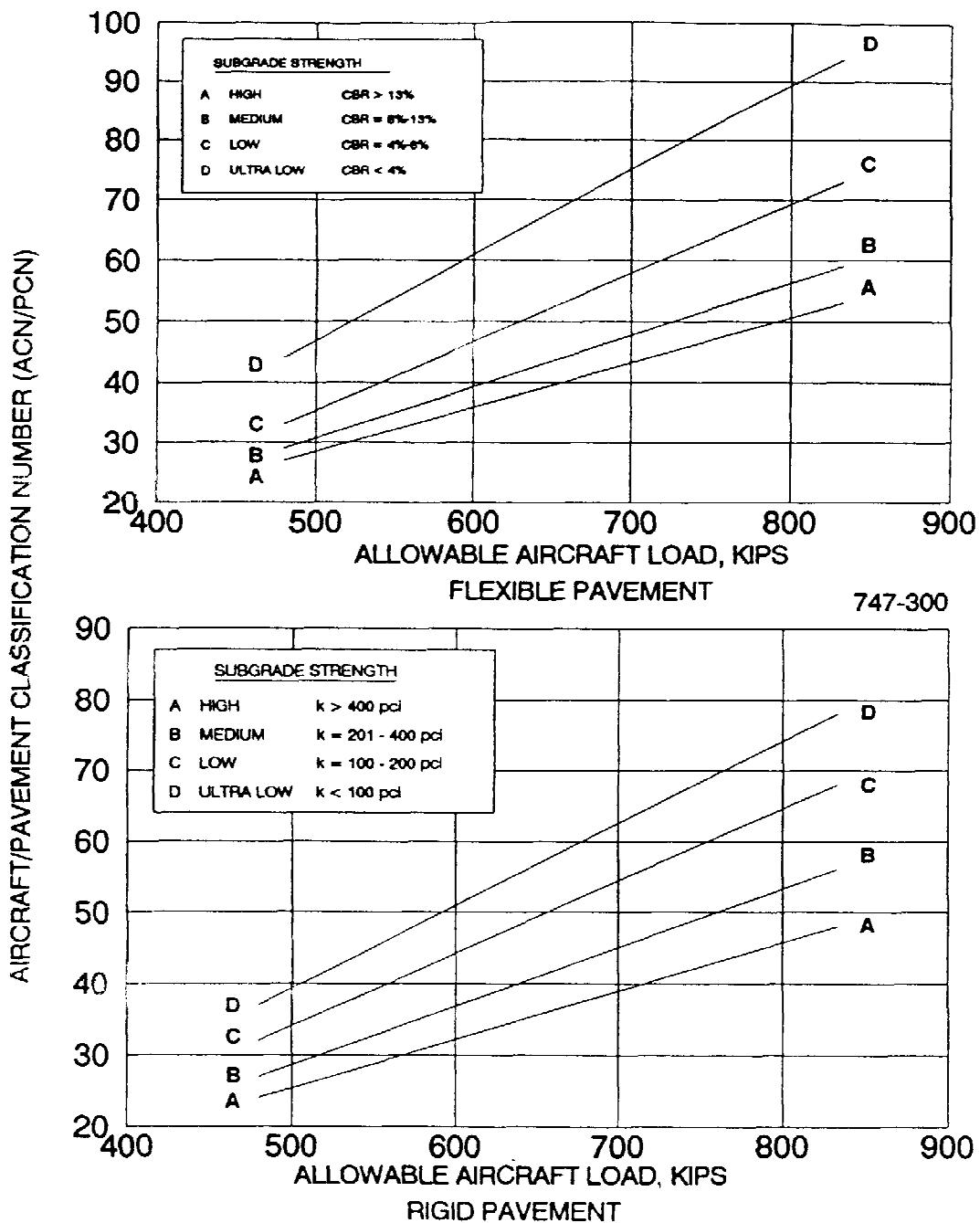


Figure A-348. Boeing 747-300-Pass., ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80C2) or Pratt
and Whitney (PW4056) or Rolls-Royce
(RB 211-524G)

No. of Engines 4 Engine Rating 57,900 lb

Min. T/O Wt. 494.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 870.0 k-lb Max. T/O Wt. War-Time 870.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 11,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 569.4 k-lb Max. Ldg. Wt. 630.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 6,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 7,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				Very Low D	
	Ultra				High A	Medium B	Low C	Low D		
	High A	Medium B	Low C	Low D						
569	30	36	43	49	34	38	45	58		
630	34	41	49	56	38	43	52	67		
870	52	62	74	84	56	64	78	100		

Figure A-349. Boeing 747-400

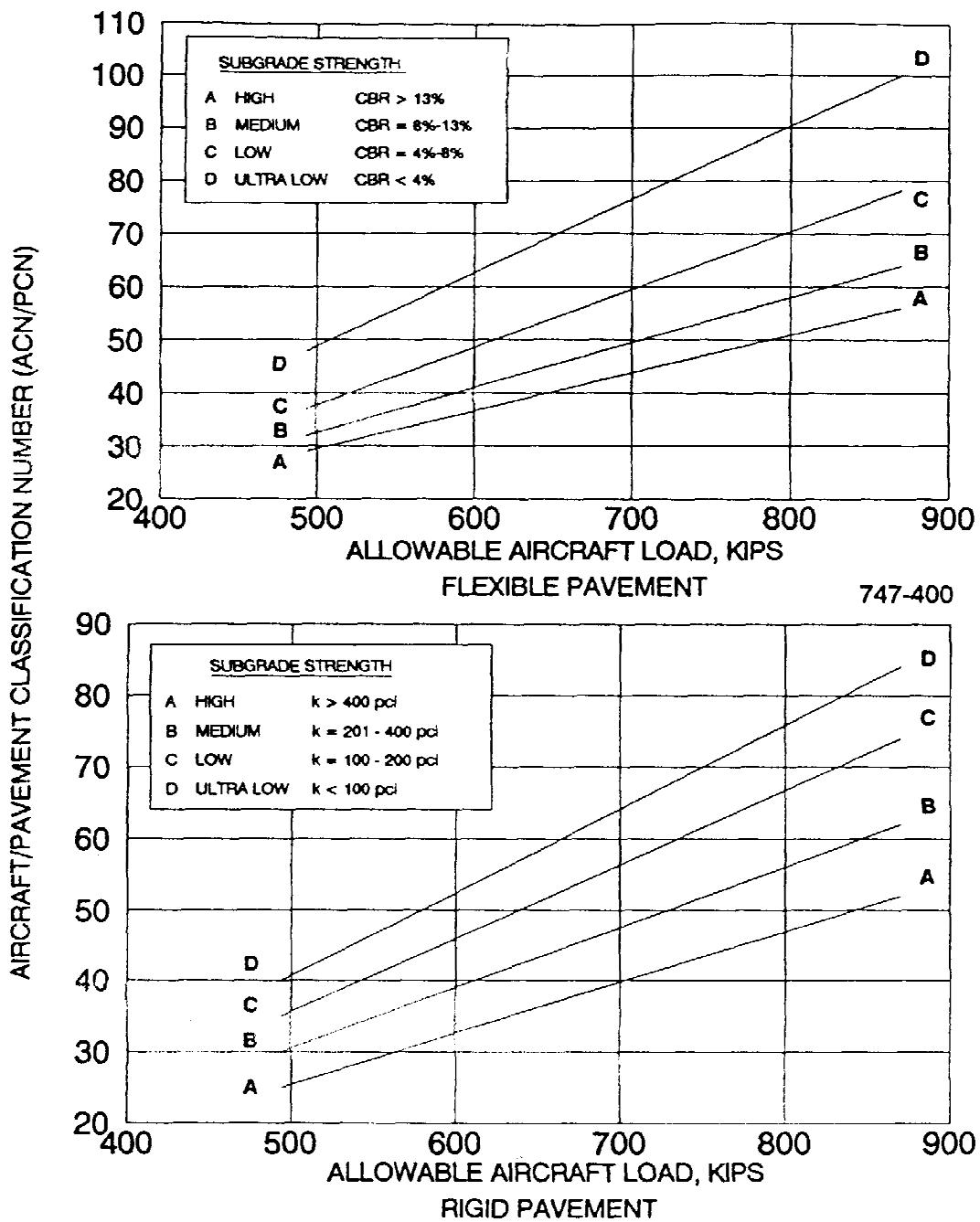


Figure A-350. Boeing 747-400, ACN/PCN Curves

27 Sep 91

Aircraft Manufacturer BoeingAircraft Engine Manufacturer Pratt and Whitney (JT9D-7A)No. of Engines 4 Engine Rating 46,950 lbMin. T/O Wt. 414.1 k-lb * Min. T/O Dist. @ Min. T/O Wt. †* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †Max. T/O Wt. Peace-Time 696.0 k-lb Max. T/O Wt. War-Time 696.0 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time 9,000 ft* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †Min. Ldg. Wt. 439.3 k-lb Max. Ldg. Wt. 450.0 k-lb* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,100 ft* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,200 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

<u>Weight</u>	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	<u>High A</u>	<u>Medium B</u>	<u>Low C</u>	<u>Ultra Low D</u>	<u>High A</u>	<u>Medium B</u>	<u>Low C</u>	<u>Very Low D</u>
439	22	24	29	33	23	25	29	38
450	23	25	30	34	24	26	30	39
696	38	44	52	60	40	44	53	72

Figure A-351. Boeing 747SP

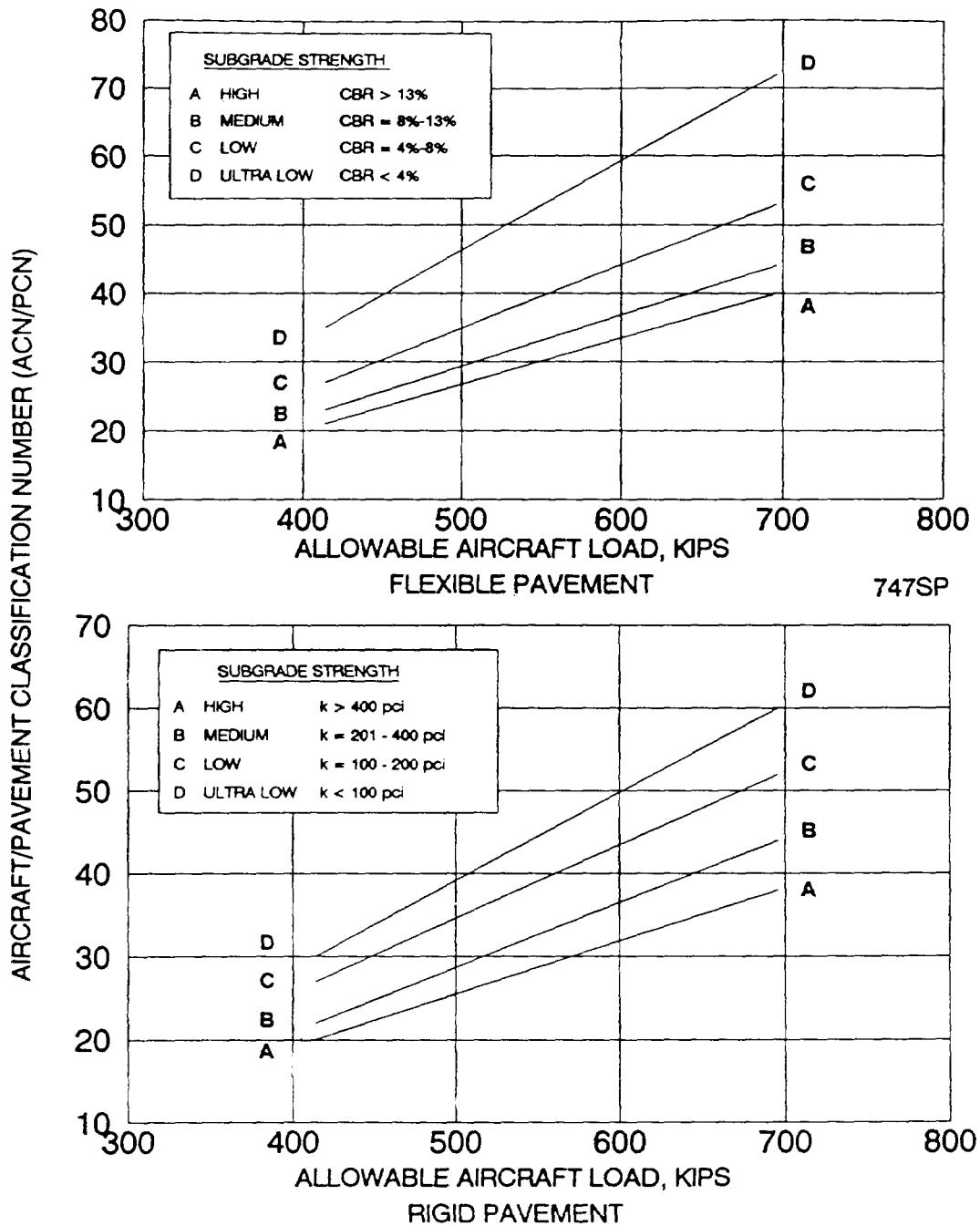


Figure A-352. Boeing 747SP, ACN/PCN Curves

27 Sep 91

Aircraft Manufacturer BoeingAircraft Engine Manufacturer Rolls-Royce (RB211-535EA)No. of Engines 2 Engine Rating 40,100 lbMin. T/O Wt. 153.7 k-lb * Min. T/O Dist. @ Min. T/O Wt. †* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †Max. T/O Wt. Peace-Time 240.0 k-lb Max. T/O Wt. War-Time 240.0 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,200 ft* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †Min. Ldg. Wt. 190.8 k-lb Max. Ldg. Wt. 198.0 k-lb* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,500 ft* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACK

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High		Medium	Low	High		Medium	Low
	A	B	C	D	A	B	C	D
191	20	24	28	33	22	24	29	38
198	21	25	30	34	23	25	30	40
240	27	32	38	44	28	32	39	51

Figure A-353. Boeing 757-200

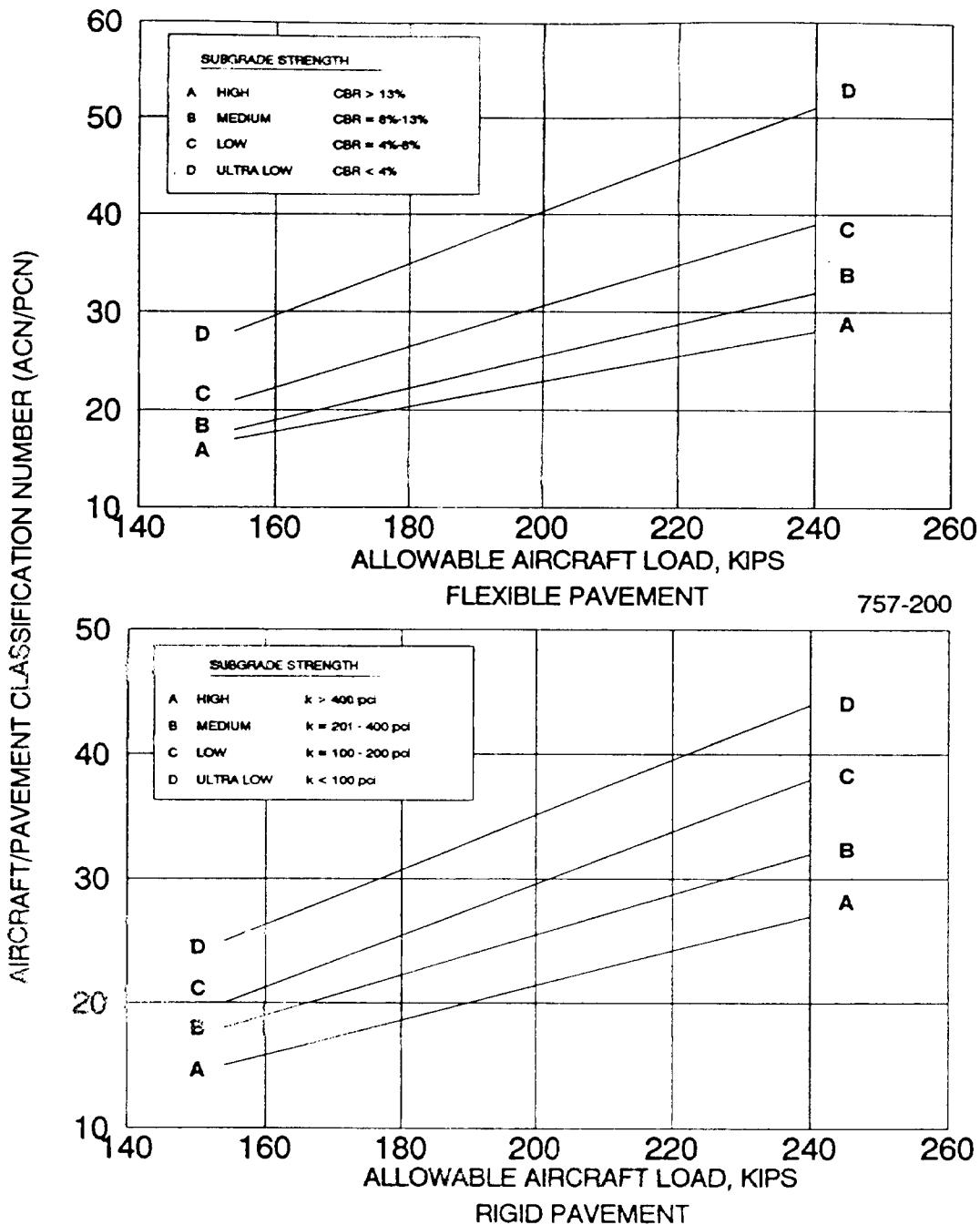


Figure A-354. Boeing 757-200, ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer Pratt and Whitney (JT9D-7R4E)

No. of Engines 2 Engine Rating 50,000 lb

Min. T/O Wt. 204.8 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 315.0 k-lb Max. T/O Wt. War-Time 315.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 260.0 k-lb Max. Ldg. Wt. 272.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,600 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,800 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				Very Low D
	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C		
260	28	32	38	44	30	33	39	50	
272	30	34	40	46	32	34	41	53	
315	35	41	48	56	38	42	50	66	

Figure A-355. Boeing 767-200

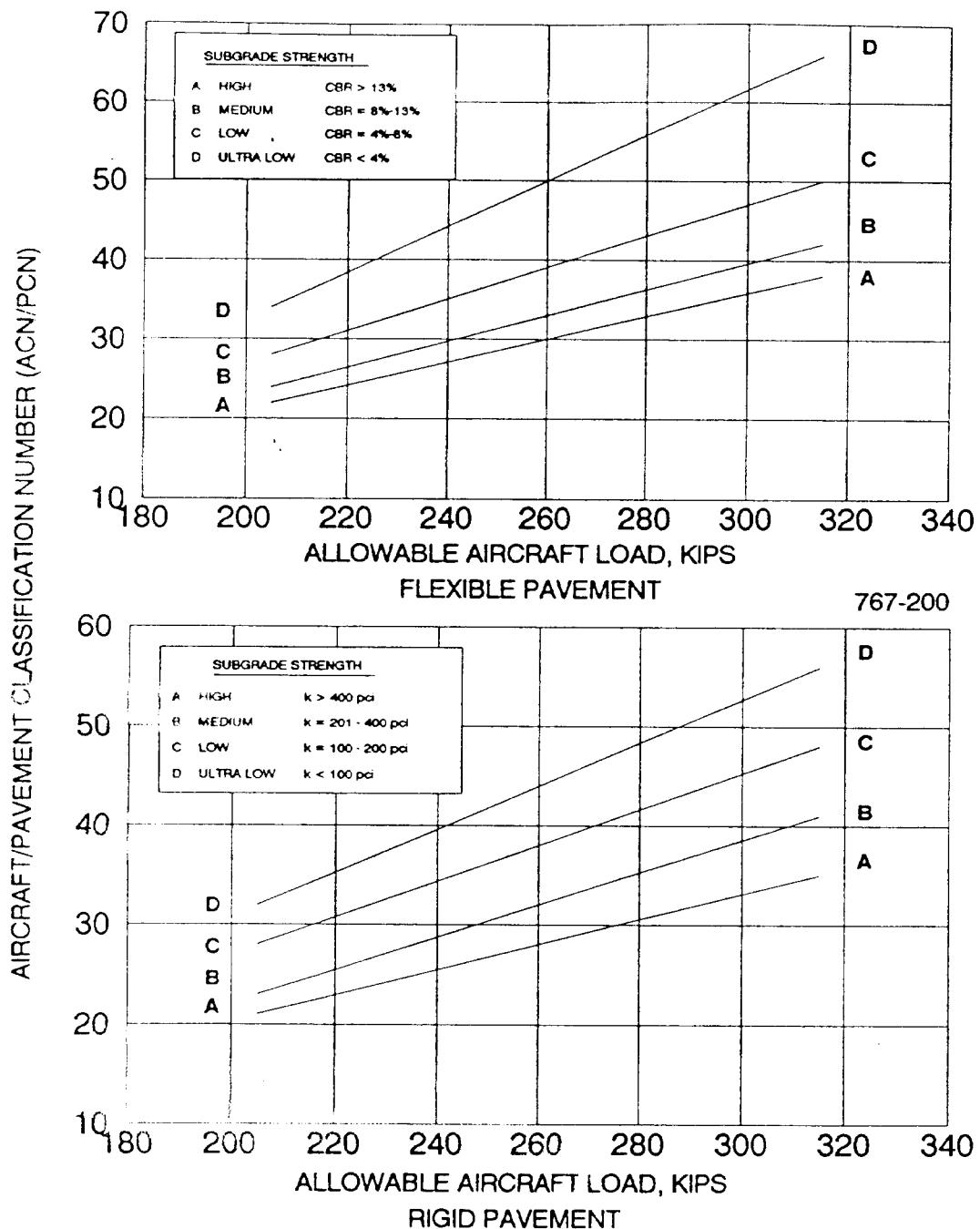


Figure A-356. Boeing 767-200, ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80A2) or
Pratt and Whitney (JT9D-7R4E)

No. of Engines 2 Engine Rating 50,000 lb

Min. T/O Wt. 217.6 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 351.0 k-lb Max. T/O Wt. War-Time 351.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,100 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 265.3 k-lb Max. Ldg. Wt. 278.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 4,700 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,900 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				
	High A	Medium B	Low C	Low D	Ultra	High A	Medium B	Low C	Very Low D
265	29	33	39	45		31	34	40	52
278	31	35	42	48		33	36	43	56
351	40	46	55	64		43	47	58	75

Figure A-357. Boeing 767-200ER

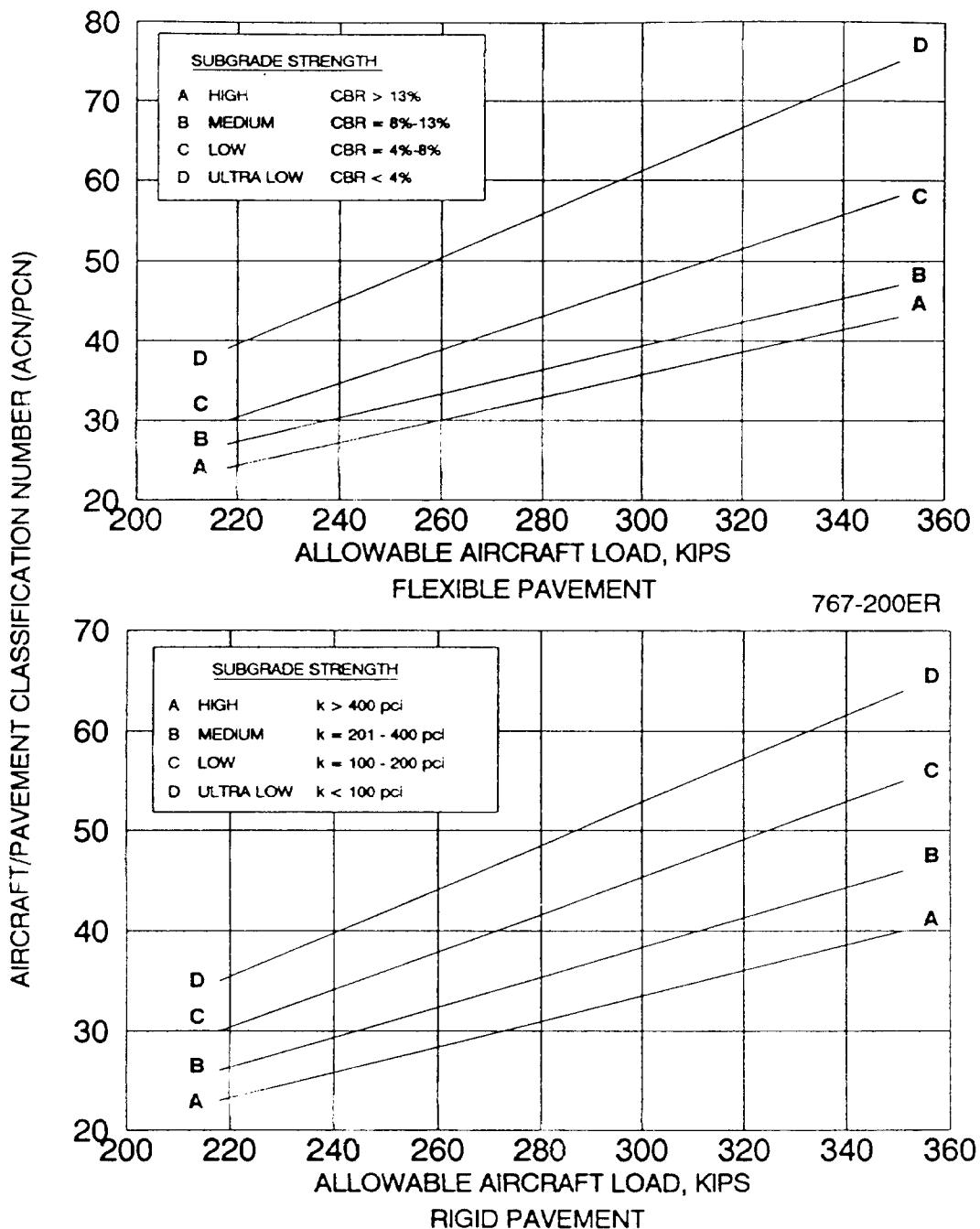


Figure A-358. Boeing 767-200ER, ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80A2) or
Pratt and Whitney (JT9D-7R4E)

No. of Engines 2 Engine Rating 50,000 lb

Min. T/O Wt. 219.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 351.0 k-lb Max. T/O Wt. War-Time 351.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 288.0 k-lb Max. Ldg. Wt. 300.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,400 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High		Medium	Low	Ultra	High		Very Low
	A	B	C	D	A	B	C	D
288	32	37	44	50	34	38	45	58
300	33	38	46	52	36	39	47	62
351	40	46	55	64	43	47	58	75

Figure A-359. Boeing 767-300.

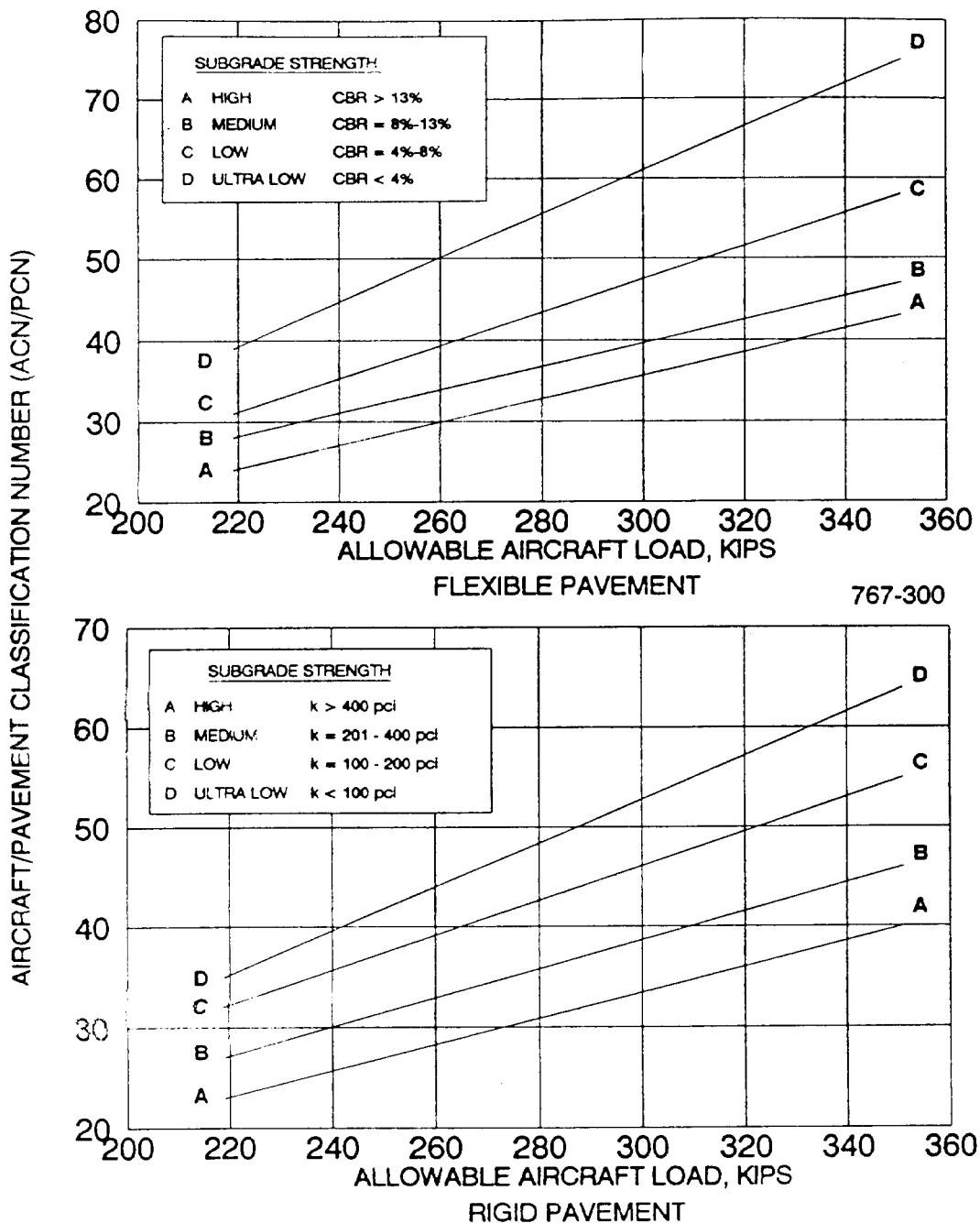


Figure A-360. Boeing 767-300, ACN/PCN Curves

ETL 1110-3-394

27 Sep 91

Aircraft Manufacturer Boeing

Aircraft Engine Manufacturer General Electric (CF6-80C2-B4) or
Pratt and Whitney (PW4056)

No. of Engines 2 Engine Rating 57,900 lb

Min. T/O Wt. 237.3 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 380.0 k-lb Max. T/O Wt. War-Time 380.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 8,500 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 292.4 k-lb Max. Ldg. Wt. 300.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 5,450 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,600 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				Very	
	High A	Medium B	Low C	Low D	Ultra	High A	Medium B	Low C	Low D	
292	32	37	44	50		34	38	45	58	
300	33	38	46	52		36	39	47	62	
380	44	51	61	70		47	52	64	84	

Figure A-361. Boeing 767-300ER